

FIG.1

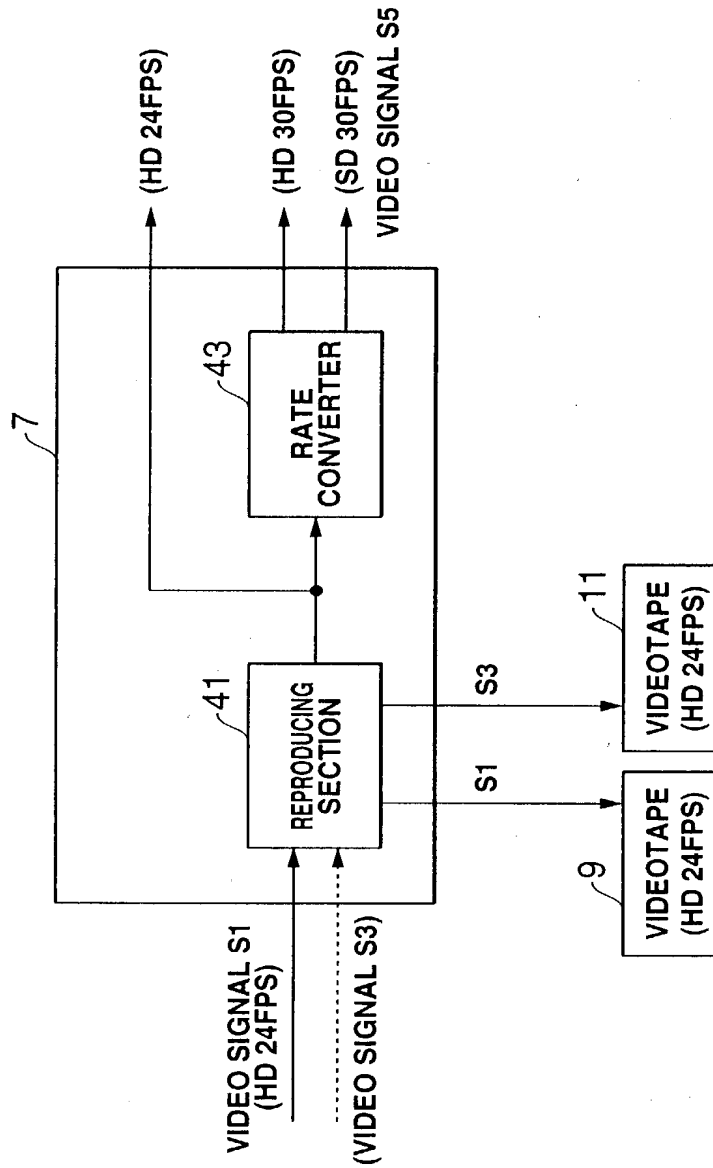


FIG.2

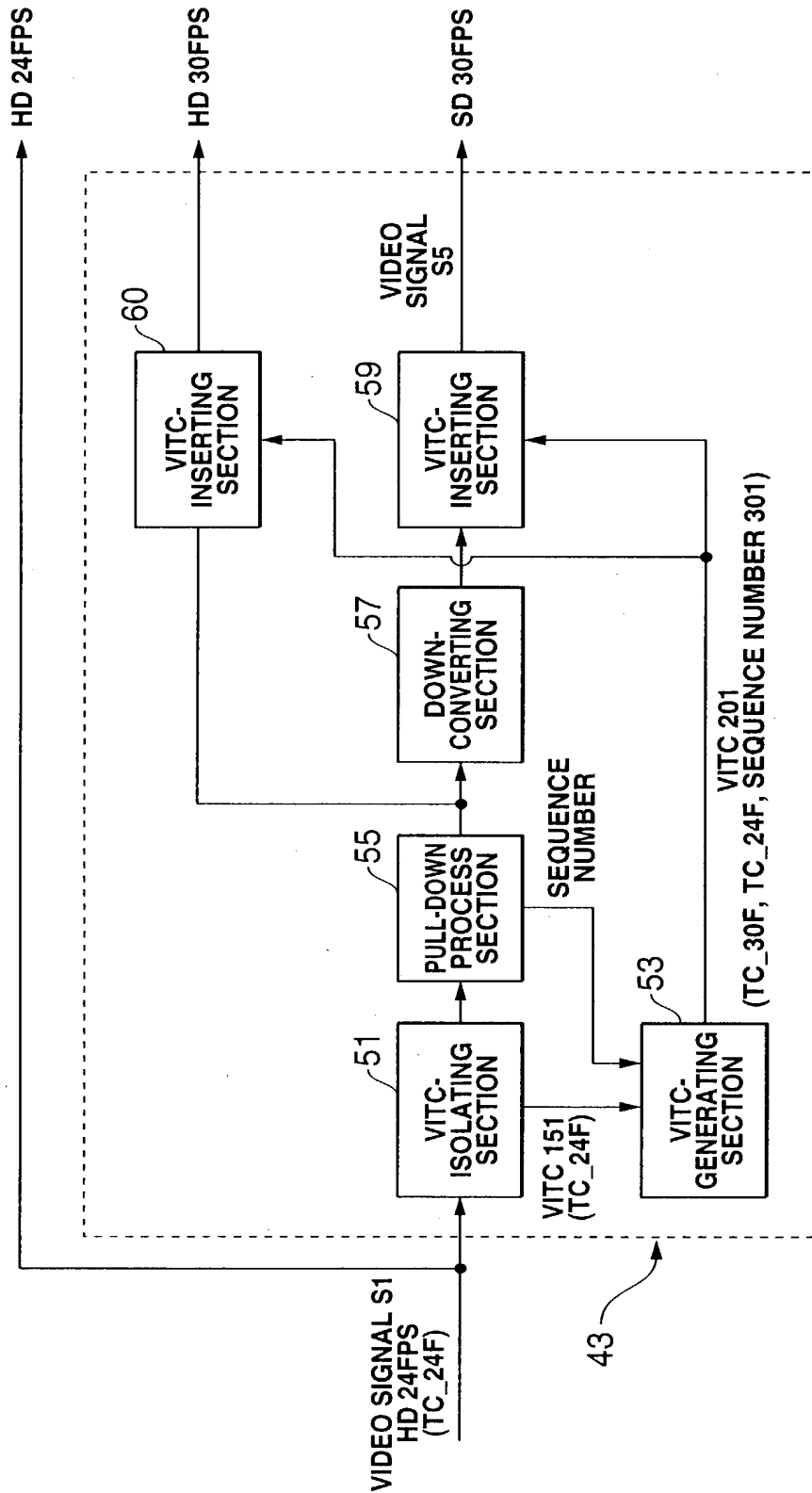


FIG.3

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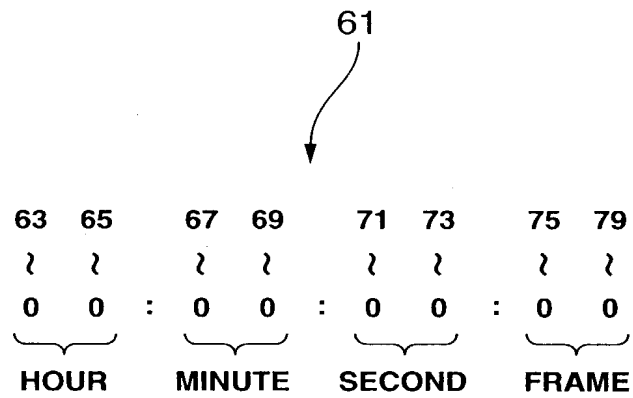


FIG.4

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VITC BIT No.	SMPTE 12M
0	VITC SYNC BIT(1)
1	VITC SYNC BIT(0)
2	TV FRAME UNITS(1)
3	TV FRAME UNITS(2)
4	TV FRAME UNITS(4)
5	TV FRAME UNITS(8)
6	1st BINARY GROUP(LSB)
7	1st BINARY GROUP
8	1st BINARY GROUP
9	1st BINARY GROUP(MSB)
10	VITC SYNC BIT(1)
11	VITC SYNC BIT(0)
12	TV FRAME TENS(1)
13	TV FRAME TENS(2)
14	DROP FRAME FLAG
15	COLOR FRAME FLAG
16	2nd BINARY GROUP(LSB)
17	2nd BINARY GROUP
18	2nd BINARY GROUP
19	2nd BINARY GROUP(MSB)
20	VITC SYNC BIT(1)
21	VITC SYNC BIT(0)
22	TV SECONDS UNITS(1)
23	TV SECONDS UNITS(2)
24	TV SECONDS UNITS(4)
25	TV SECONDS UNITS(8)
26	3rd BINARY GROUP(LSB)
27	3rd BINARY GROUP
28	3rd BINARY GROUP
29	3rd BINARY GROUP(MSB)
30	VITC SYNC BIT(1)
31	VITC SYNC BIT(0)
32	TV SECONDS TENS(1)
33	TV SECONDS TENS(2)
34	TV SECONDS TENS(4)
35	FIELD/PHASE FLAG
36	4th BINARY GROUP(LSB)
37	4th BINARY GROUP
38	4th BINARY GROUP
39	4th BINARY GROUP(MSB)

FIG.5

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101

VITC BIT No.	SMPTE 12M
40	VITC SYNC BIT(1)
41	VITC SYNC BIT(0)
42	TV MINUTES UNITS(1)
43	TV MINUTES UNITS(2)
44	TV MINUTES UNITS(4)
45	TV MINUTES UNITS(8)
46	5th BINARY GROUP(LSB)
47	5th BINARY GROUP
48	5th BINARY GROUP
49	5th BINARY GROUP(MSB)
50	VITC SYNC BIT(1)
51	VITC SYNC BIT(0)
52	TV MINUTES TENS(1)
53	TV MINUTES TENS(2)
54	TV MINUTES TENS(4)
55	BINARY GROUP FLAG 0
56	6th BINARY GROUP(LSB)
57	6th BINARY GROUP
58	6th BINARY GROUP
59	6th BINARY GROUP(MSB)
60	VITC SYNC BIT(1)
61	VITC SYNC BIT(0)
62	TV HOURS UNITS(1)
63	TV HOURS UNITS(2)
64	TV HOURS UNITS(4)
65	TV HOURS UNITS(8)
66	7th BINARY GROUP(LSB)
67	7th BINARY GROUP
68	7th BINARY GROUP
69	7th BINARY GROUP(MSB)
70	VITC SYNC BIT(1)
71	VITC SYNC BIT(0)
72	TV HOURS TENS(1)
73	TV HOURS TENS(2)
74	BINARY GROUP FLAG 1
75	BINARY GROUP FLAG 2
76	8th BINARY GROUP(LSB)
77	8th BINARY GROUP
78	8th BINARY GROUP
79	8th BINARY GROUP(MSB)
80	VITC SYNC BIT(1)
81	VITC SYNC BIT(0)
82	VITC CRCC CODE

FIG.6

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	VITC BIT No.	
103-1	0	VITC SYNC BIT(1)
	1	VITC SYNC BIT(0)
105-1	2	24F TV FRAME UNITS
	3	24F TV FRAME UNITS
	4	24F TV FRAME UNITS
	5	24F TV FRAME UNITS
113-1	6	1st BINARY GROUP
	7	1st BINARY GROUP
	8	1st BINARY GROUP
	9	1st BINARY GROUP
103-2	10	VITC SYNC BIT(1)
	11	VITC SYNC BIT(0)
105-2	12	24F TV FRAME TENS(1)
	13	24F TV FRAME TENS(2)
	14	24F DROP FRAME FLAG
	15	24F COLOR FRAME FLAG
113-2	16	2nd BINARY GROUP
	17	2nd BINARY GROUP
	18	2nd BINARY GROUP
	19	2nd BINARY GROUP
103-3	20	VITC SYNC BIT(1)
	21	VITC SYNC BIT(0)
107-1	22	24F TV SECONDS UNITS(1)
	23	24F TV SECONDS UNITS(2)
	24	24F TV SECONDS UNITS(4)
	25	24F TV SECONDS UNITS(8)
113-3	26	3rd BINARY GROUP
	27	3rd BINARY GROUP
	28	3rd BINARY GROUP
	29	3rd BINARY GROUP
103-4	30	VITC SYNC BIT(1)
	31	VITC SYNC BIT(0)
107-2	32	24F TV SECONDS TENS(1)
	33	24F TV SECONDS TENS(2)
	34	24F TV SECONDS TENS(4)
108	35	24F FIELD/PHASE FLAG
113-4	36	4th BINARY GROUP
	37	4th BINARY GROUP
	38	4th BINARY GROUP
	39	4th BINARY GROUP

FIG.7

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	VITC BIT No.	
103-5	40	VITC SYNC BIT(1)
	41	VITC SYNC BIT(0)
109-1	42	24F TV MINUTES UNITS(1)
	43	24F TV MINUTES UNITS(2)
	44	24F TV MINUTES UNITS(4)
	45	24F TV MINUTES UNITS(8)
113-5	46	5th BINARY GROUP
	47	5th BINARY GROUP
	48	5th BINARY GROUP
	49	5th BINARY GROUP
103-6	50	VITC SYNC BIT(1)
	51	VITC SYNC BIT(0)
109-2	52	24F TV MINUTES TENS(1)
	53	24F TV MINUTES TENS(2)
	54	24F TV MINUTES TENS(4)
113-6	55	BINARY GROUP FLAG 0
	56	6th BINARY GROUP
	57	6th BINARY GROUP
	58	6th BINARY GROUP
	59	6th BINARY GROUP
103-7	60	VITC SYNC BIT(1)
	61	VITC SYNC BIT(0)
111-1	62	24F TV HOURS UNITS(1)
	63	24F TV HOURS UNITS(2)
	64	24F TV HOURS UNITS(4)
	65	24F TV HOURS UNITS(8)
113-7	66	7th BINARY GROUP
	67	7th BINARY GROUP
	68	7th BINARY GROUP
	69	7th BINARY GROUP
103-8	70	VITC SYNC BIT(1)
	71	VITC SYNC BIT(0)
111-2	72	24F TV HOURS TENS(1)
	73	24F TV HOURS TENS(2)
	74	BINARY GROUP FLAG 1
113-8	75	BINARY GROUP FLAG 2
	76	8th BINARY GROUP
	77	8th BINARY GROUP
	78	8th BINARY GROUP
	79	8th BINARY GROUP
103-9	80	VITC SYNC BIT(1)
	81	VITC SYNC BIT(0)
	82	VITC CRCC CODE

FIG.8

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	VITC BIT No.	
203-1	0	VITC SYNC BIT(1)
	1	VITC SYNC BIT(0)
205-1	2	30F TV FRAME UNITS(1)
	3	30F TV FRAME UNITS(2)
	4	30F TV FRAME UNITS(4)
	5	30F TV FRAME UNITS(8)
213-1	6	24F TV FRAME UNITS(1)
	7	24F TV FRAME UNITS(2)
	8	24F TV FRAME UNITS(4)
	9	24F TV FRAME UNITS(8)
203-2	10	VITC SYNC BIT(1)
	11	VITC SYNC BIT(0)
205-2	12	30F TV FRAME TENS(1)
	13	30F TV FRAME TENS(2)
	14	30F DROP FRAME FLAG
	15	30F COLOR FRAME FLAG
213-2	16	24F TV FRAME TENS(1)
	17	24F TV FRAME TENS(2)
	18	SPEAR
	19	SPEAR
203-3	20	VITC SYNC BIT(1)
	21	VITC SYNC BIT(0)
207-1	22	30F TV SECONDS UNITS(1)
	23	30F TV SECONDS UNITS(2)
	24	30F TV SECONDS UNITS(4)
	25	30F TV SECONDS UNITS(8)
213-3	26	24F TV SECONDS UNITS(1)
	27	24F TV SECONDS UNITS(2)
	28	24F TV SECONDS UNITS(4)
	29	24F TV SECONDS UNITS(8)
203-4	30	VITC SYNC BIT(1)
	31	VITC SYNC BIT(0)
207-2	32	30F TV SECONDS TENS(1)
	33	30F TV SECONDS TENS(2)
	34	30F TV SECONDS TENS(4)
208	35	30F FIELD/PHASE FLAG
213-4	36	24F TV SECONDS TENS(1)
	37	24F TV SECONDS TENS(2)
	38	24F TV SECONDS TENS(4)
220-1	39	Pull Down Sequence bit 0 → d0

FIG.9

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201		VITC BIT No.	
203-5	{	40	VITC SYNC BIT(1)
		41	VITC SYNC BIT(0)
209-1	{	42	30F TV MINUTES UNITS(1)
		43	30F TV MINUTES UNITS(2)
		44	30F TV MINUTES UNITS(4)
		45	30F TV MINUTES UNITS(8)
213-5	{	46	24F TV MINUTES UNITS(1)
		47	24F TV MINUTES UNITS(2)
		48	24F TV MINUTES UNITS(4)
		49	24F TV MINUTES UNITS(8)
203-6	{	50	VITC SYNC BIT(1)
		51	VITC SYNC BIT(0)
209-2	{	52	30F TV MINUTES TENS(1)
		53	30F TV MINUTES TENS(2)
		54	30F TV MINUTES TENS(4)
		55	BINARY GROUP FLAG 0
213-6	{	56	24F TV MINUTES TENS(1)
		57	24F TV MINUTES TENS(2)
		58	24F TV MINUTES TENS(4)
220-2	{	59	Pull Down Sequence bit 1 → d1
203-7	{	60	VITC SYNC BIT(1)
		61	VITC SYNC BIT(0)
211-1	{	62	30F TV HOURS UNITS(1)
		63	30F TV HOURS UNITS(2)
		64	30F TV HOURS UNITS(4)
		65	30F TV HOURS UNITS(8)
213-7	{	66	24F TV HOURS UNITS(1)
		67	24F TV HOURS UNITS(2)
		68	24F TV HOURS UNITS(4)
		69	24F TV HOURS UNITS(8)
203-8	{	70	VITC SYNC BIT(1)
		71	VITC SYNC BIT(0)
211-2	{	72	30F TV HOURS TENS(1)
		73	30F TV HOURS TENS(2)
		74	BINARY GROUP FLAG 1
		75	BINARY GROUP FLAG 2
213-8	{	76	24F TV HOURS TENS(1)
		77	24F TV HOURS TENS(2)
220-3	{	78	Pull Down Sequence bit 2 → d2
		79	Pull Down Sequence bit 3 → d3
203-9	{	80	VITC SYNC BIT(1)
		81	VITC SYNC BIT(0)
		82	VITC CRCC CODE

FIG.10

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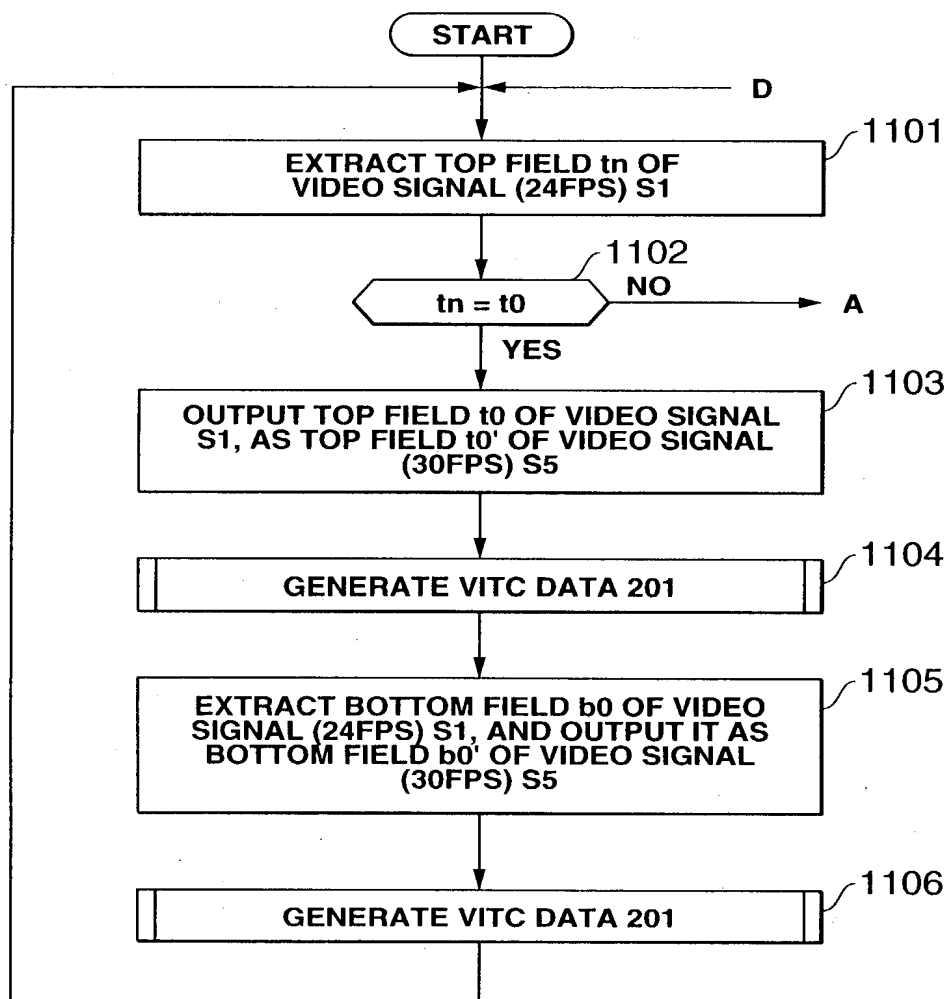


FIG.11

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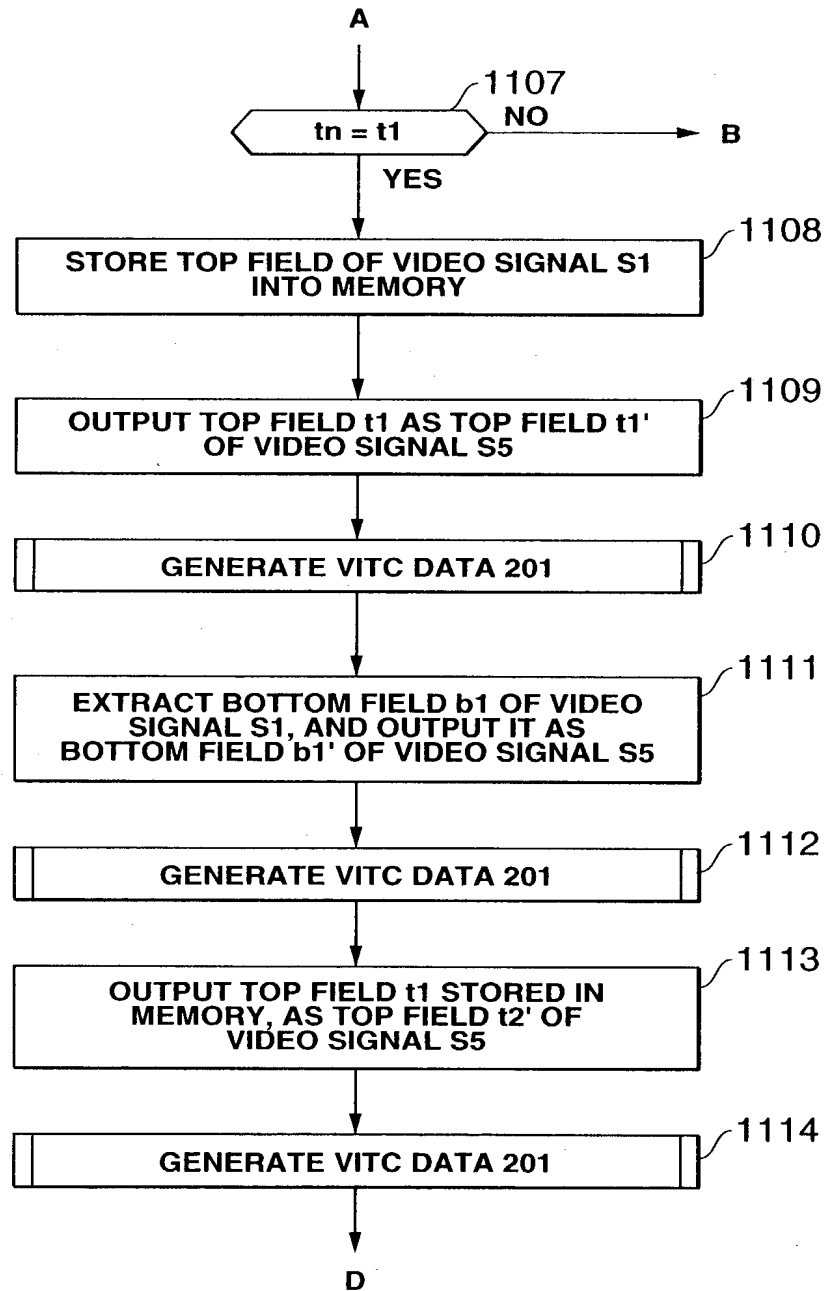


FIG.12

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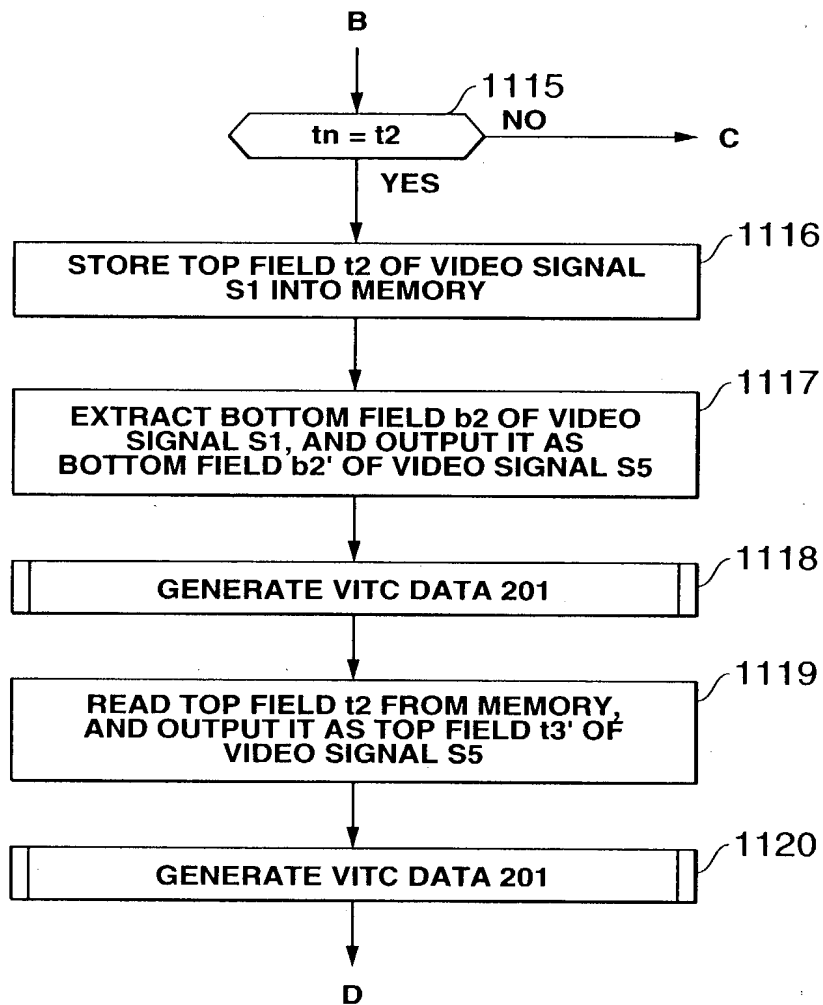


FIG.13

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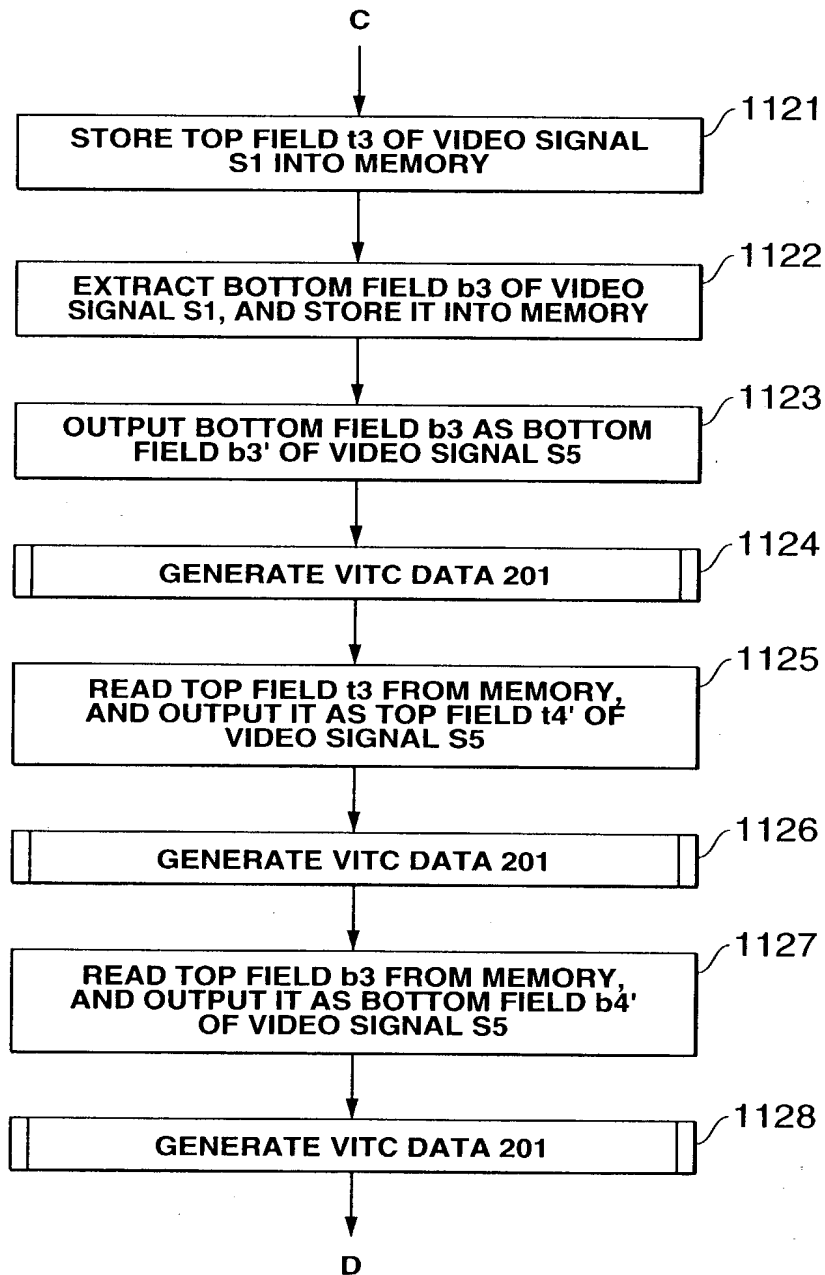


FIG.14

ORIGINAL TIME CODE ADDED
TO VIDEO SIGNAL S1

VIDEO SIGNAL S1 (24FPS)

VIDEO SIGNAL S5 (30FPS)

TC_30F

DATA TO BE
INSERTED INTO
VITC DATA 201 OF
VIDEO SIGNAL S5

TC_24F

SEQUENCE
NUMBER 301

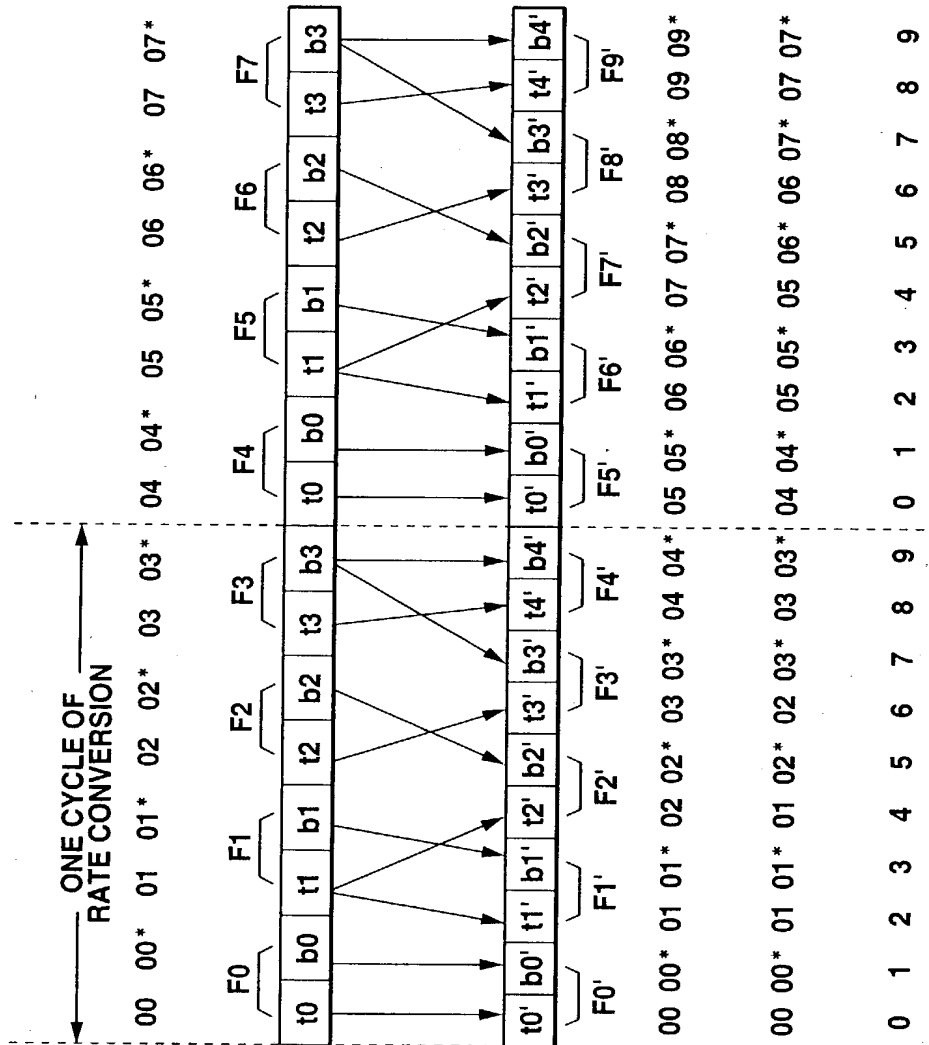
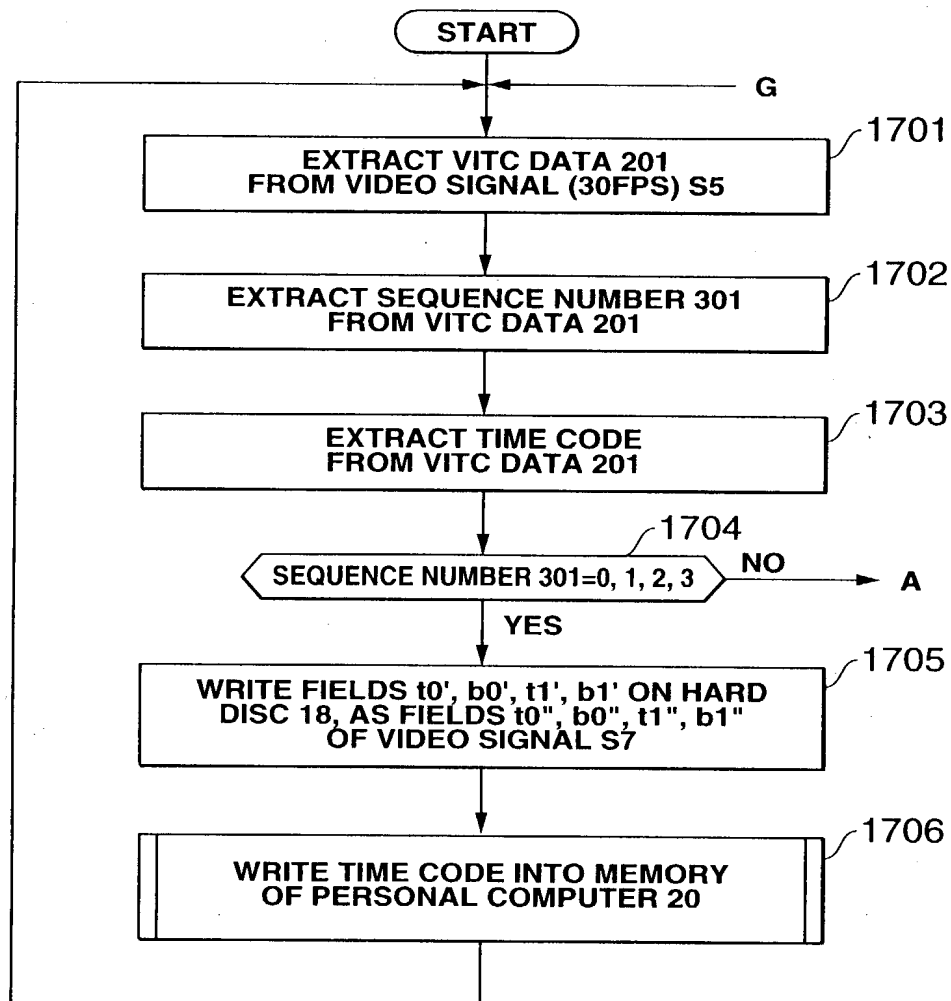


FIG.15

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**FIG.16**

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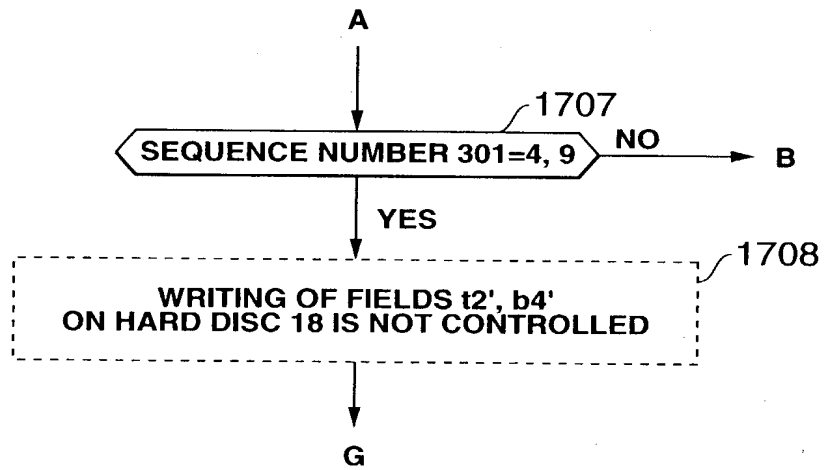


FIG.17

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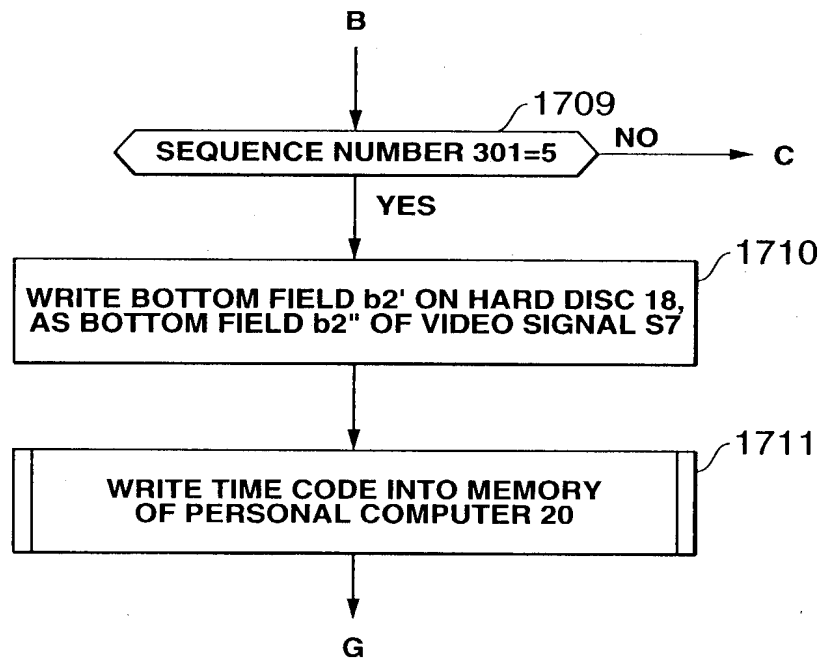


FIG.18

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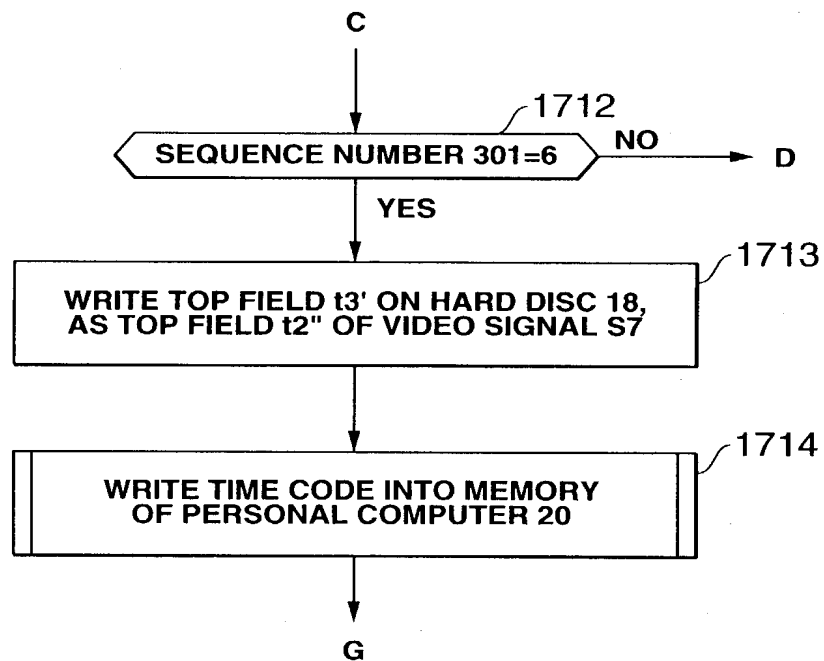


FIG.19

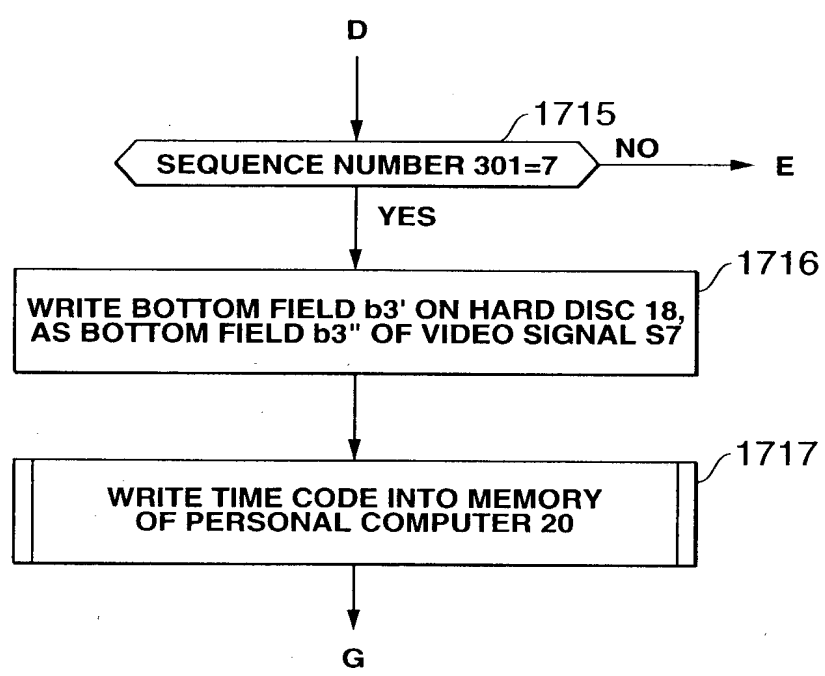


FIG.20

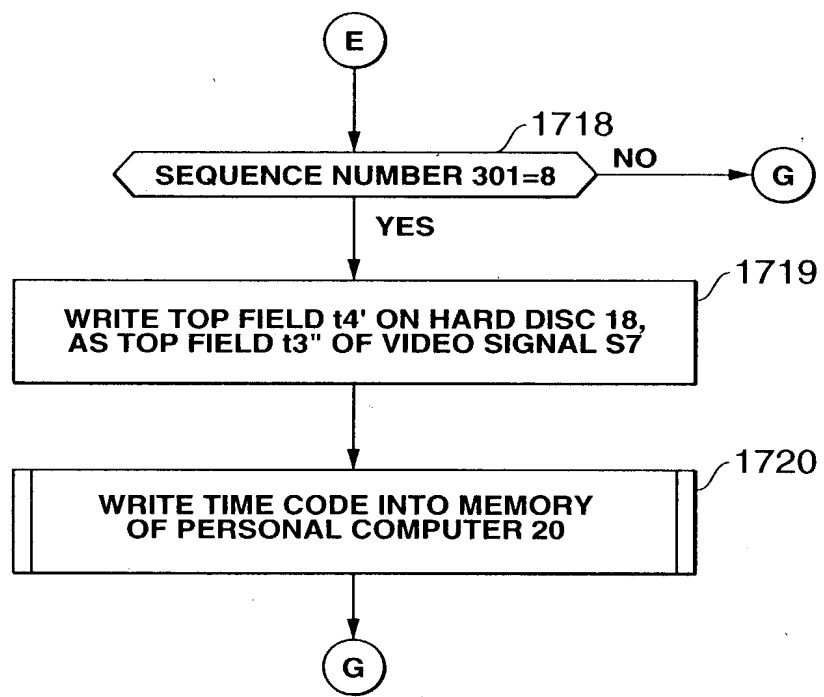


FIG.21

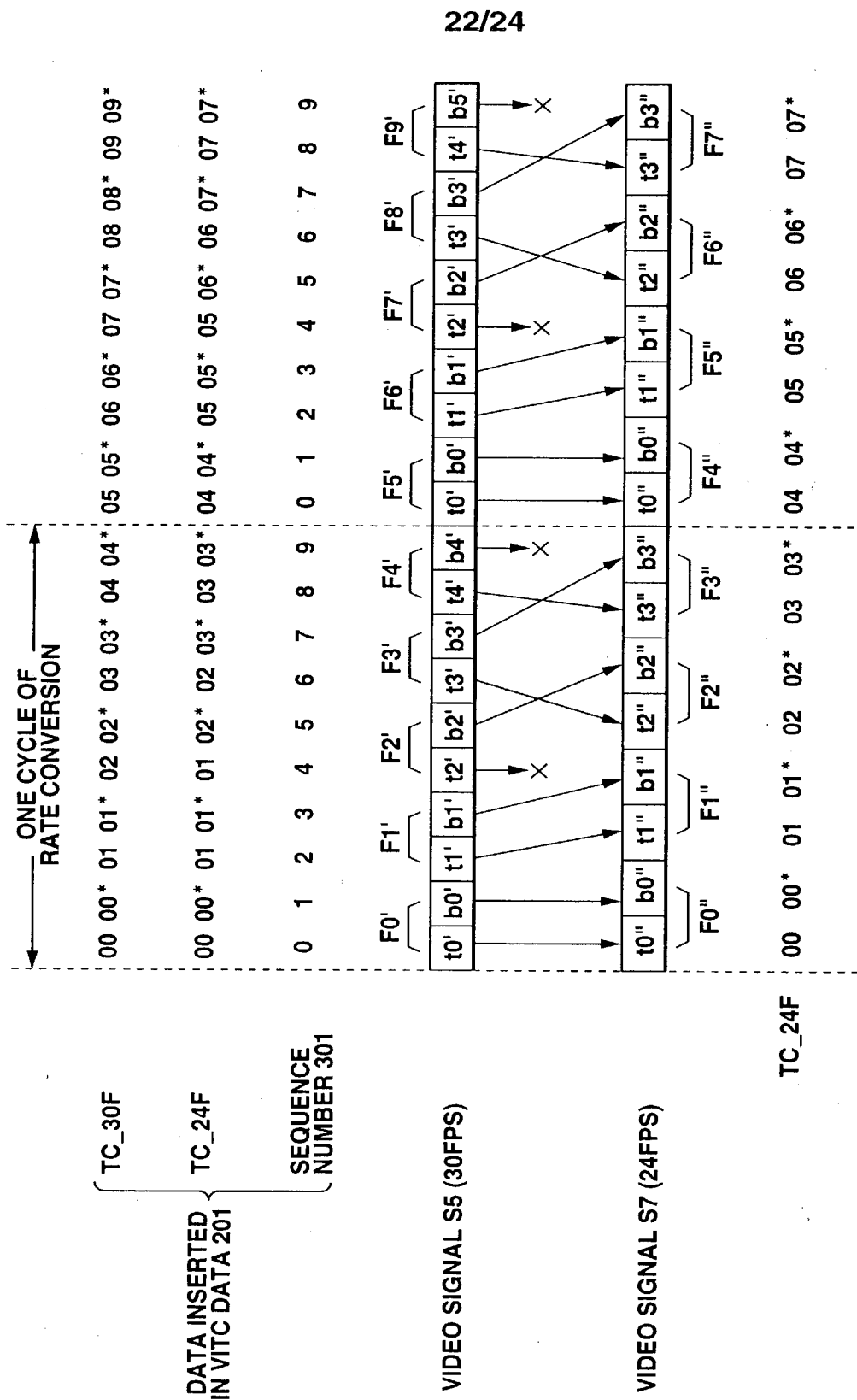


FIG.22

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↓

	71 IN	73 OUT	75 TYPE OF TAPE
77-1 A-1	00:02:00:10	00:05:12:18	VIDEOTAPE 9
77-2 A-2	00:08:30:02	00:10:15:06	VIDEOTAPE 9
77-3 A-3	00:03:15:10	00:07:20:16	VIDEOTAPE 11
A-4	VIDEOTAPE 11
A-5	VIDEOTAPE 9

FIG.23

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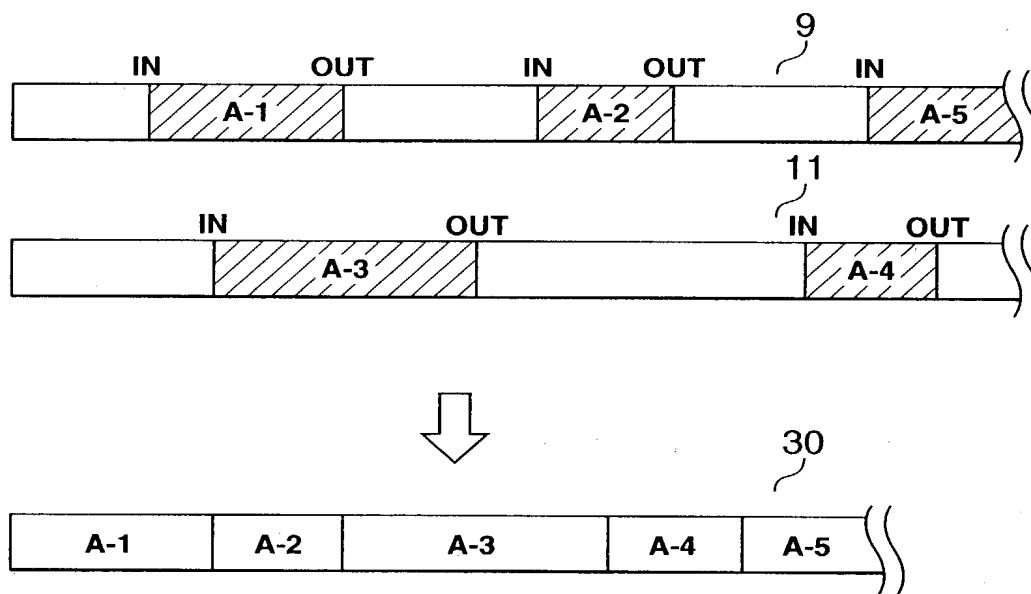


FIG.24